RELIABILITY IS KEY IN A DIGITAL SUPPLY CHAIN

WHITE PAPER

Supply chains are changing. Terms such as block chain, big data analysis and the Internet of Things are no longer buzzwords. A growing group of companies is aware that digitisation in the supply chain is indispensable if they are to remain competitive in a dynamic market. Reliability is the keyword.

Digitisation opens doors that were previously closed. Anyone wishing to stay ahead and remain competitive will need to explore, adapt and upscale. After all, standing still means falling behind. The greatest motivation for digitising supply chains has been shown to be cost savings, followed by increased sales and support from new business models. These conclusions emerged from new research by the Capgemini Research Institute; 'The digital supply chain's missing link: focus'. And yet, so far we have rarely managed to actually scale up proof-of-concepts and pilots. Worldwide, 'only' half of the companies are making digitisation of the supply chain a priority. Research conducted by the Harrington Group among 335 chain and operations professionals in various industries worldwide, reveals that the opportunities provided by digitisation for the supply chain remain largely unexploited. The research report concludes that although new techno-logies are known to offer benefits, they are hardly ever used. This is no different in the container logistics industry, including the hinterland.

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Transparency is of great value

It is odd, really; certainly when we examine how in our everyday life we are so used to and spoilt by the benefits of digitisation. For example, it only takes a couple of mouse clicks for someone to order a pair of sports shoes or a television on the consumer market, and then they are kept up to date about virtually every step of the order process. Furthermore, the order can be tracked and traced at any time. You might expect the same transparency to be of great value to shippers in the container chain too. However, as far as a full container load of the same sports shoes or televisions is concerned, it has so far proven to be considerably trickier to keep the links in the logistics chain informed about the status of the cargo.

Reliability takes top priority

To gain more insight into the possibilities and the challenges, it is a good idea to start by examining the criteria by which supply chains are designed, selected and assessed. Often, it only seems to be about price and transit time; however, research conducted by Erasmus University Rotterdam has shown that in fact reliability is the most important criterion. This makes sense because the more reliable a supply chain, the greater the chance that the objectives will be achieved and the efficiency of the chain will improve even further. It is in this reliability that the profit for each link in the chain lies.

Measuring is knowing

So what exactly is reliability, and how do you go about measuring it? Put simply, what it boils down to is that in a reliable supply chain, everything goes according to plan. However, it is often difficult, if not impossible, to measure this for the whole chain. In the example of container logistics, we can see that the maritime side of the chain is relatively straightforward and easily measurable. Conversely, the hinter-land is much more complex. There, so many more links and correspondingly so much more data is involved in the chain. This is data which until now has scarcely been logged, is not up to date and/or - if it is logged - is rarely shared with other supply chain partners. The lack of data acts as a brake on the development of a reliable supply chain. This is certainly the case when it is necessary for planning, say, when you need to give information on when the following link can expect the sports shoes or televisions that have been ordered. Digitisation enables the gathering of large volumes of data so that the coordination of separate modes of tran-sport, synchromodality (the optimal, flexible and sustainable deployment of various modes of transport in a network under the direction of a logistics service provider) and hinterland connections can be further optimised. After all, measuring is knowing.

predictable and more reliable. In other words, the status of a full container load of sports shoes or televisions is transparent to all links in the chain. Synchromodality makes it possible for the shipper or forwarder to offer an integrated solution for transport towards the hinterland. Future supply chains are expected to be redesigned with synchromodality in mind. More horizontal collaboration will be needed in order to respond to the demand for shorter, more sustainable, reliable and more cost-efficient chains.

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Partial optimisation or data sharing?

The mindset is a crucial factor in this large supply chain transformation. Only when all links in a chain have been convinced of the benefits and really want to make the most of them, success can be achieved. There must also be something to gain for every link. Sharing is therefore at least as crucial. This is because, if data is available but is not being shared with the whole supply chain, improvements will remain restricted to partial optimisations. From this point of view, it is disastrous that people still have a blinkered view of the chain. The further along a link is in the supply chain, the less feeling companies seem to have for it. Even if - as part of the whole chain - they depend on it as much as the other links. Moreover, the day-to-day job is often ad hoc and the focus is on internal improvements. The time to look beyond its own business operation, let alone introducing improvements there as well, is simply lacking. Sharing is also important for creating commitment. If digitisation only yields benefits to one or a few chain partners, the other links will be reluctant to share their data.

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More collaboration needed

Sharing data also opens new doors. With the right data (or availability of data), for example as a result of increasing interaction between sea ports and the hinterland, intermodal connections become quicker, more efficient, more

From black hole to black box

Standardisation is essential to the sharing of data and increased transparency. When all parties speak the same language and clear definitions are established, what was up to now a black hole becomes a black box; a powerful platform full of valuable information. One of the basic conditions for achieving such a powerful platform is that the processes throughout the chain need to be comprehensible. Data points must be defined and identified, preferably in accordance with universal standards. Then a scalable digital solution that can offer a potential for improvement is needed for every link in the chain, whether large or small. Smart platforms reuse data, which only needs to be linked once. For instance, historic data could be used to resolve bottlenecks in the chain. By adding current information and applying smart algorithms to historic data, the platforms also make reliable, real-time tracking & tracing possible. In other words: digitisation gives the different links in the chain more grip and control. However, the reliability of the total supply chain will only be able to benefit if this not only happens in one or more separate links, but throughout the supply chain.

Neutral intermediary

Ideally, we need a neutral, non-commercial intermediary to be responsible for the management and sharing of data. From this neutral position, such a party, that would have a helicopter view of all the links, could provide insight into the performance of the supply chain and help improve it to create a win-win situation for all chain partners. In the container industry, for example, this role would suit the

port authorities. After all, they already have huge amounts of valuable data at their disposal and, additionally, they are in contact with a large number of stakeholders. Whereas until recently the port authorities mainly focused on physical flows, they will have to evolve into digital chain partners. The physical infrastructure is in place. Now it is time for the digital infrastructure. And that will reach far beyond own regions and the hinterland.

Strength in numbers

Anyone who wishes to stay ahead of the competition, can no longer circumvent the digital infrastructure. As already stated, it is time to explore, adapt and upscale. Step by step. This will only increase reliability. Moreover, you don't need to keep reinventing the wheel. It is precisely when the chain does this together - preferably using a standardised solution - that a reliable, digital supply chain can emerge, providing oppor-

tunities for all of the links along it. This kind of new digital standard will also enable less powerful links in the chain to profit from the advantages offered by digitisation. Digitisation plays a key role in the transformation of logistic services. For instance, technological progress enables increasing real time insight into dynamic pricing, schedules, booking, shipments, etc. The possibilities already exist. It is up to the various stakeholders to embrace the changes and to work together to develop the logistics chain of the future. Anyone neglecting to do this now is likely to miss the boat.

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